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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,727	03/16/2004	Atsushi Hirota	118925	1036

25944 7590 05/03/2006

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EXAMINER	
FIDLER, SHELBY LEE	
ART UNIT	**PAPER NUMBER**
2861	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/800,727	HIROTA, ATSUSHI	
	Examiner	Art Unit	
	Shelby Fidler	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *9-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/2/04 and 7/6/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Election/Restrictions

Applicant's election with traverse of claims 1-8 in the reply filed on 4/13/2006 is acknowledged. The traversal is on the ground(s) that the search and examination of the entire application could be made without serious burden. This is not found persuasive because restriction between a process of making and product made is proper if the product as claimed can be made by another materially different process, as set forth in section 806.05(f) of the MPEP.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakaida et al. (US 6808254 B2).

Sakaida et al. teaches the following:

***regarding claim 1**, an inkjet head comprising:

a passage unit (*cavity plate 10, Figure 3*) in which a plurality of pressure chambers each connected to a corresponding nozzle (*col. 6, lines 40-43*) are arranged to each other along a plane (*col. 5, lines 4-6*);

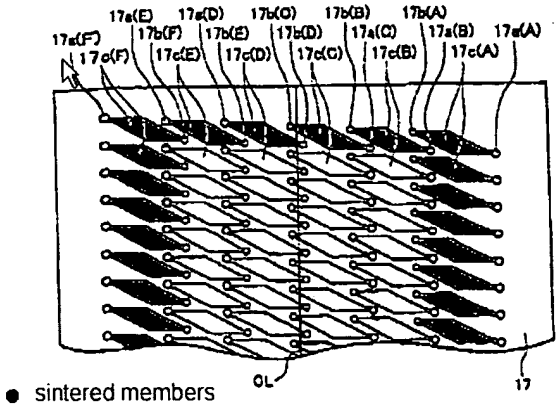
an actuator unit (*actuator 20*) that is fixed to the passage unit (*col. 5, lines 3-4*) to change the volume of the pressure chambers (*col. 6, lines 52-59*);

wherein the actuator unit includes:

a piezoelectric element that spans a plurality of pressure chambers (*col. 4, lines 7-10*);

a plurality of individual electrodes that have been sintered on a surface of the piezoelectric element (*col. 9, lines 36-39*) at positions corresponding to the respective pressure chambers (*col. 8, lines 47-52*); and

one or more sintered members that are, on the surface of the piezoelectric element provided with the plurality of individual electrodes, spaced from an outermost one of the individual electrodes with respect to an arrangement direction of the plurality of individual electrodes, in an outward direction from the plurality of individual electrodes (*outer electrodes corresponding to chambers 17c read as sintered members, Figure 5b; see Drawing A below*)



Drawing A: Figure 5b from Sakaida et al. (US 6808254 B2), edited for clarity

***regarding claim 2**, the sintered members and the individual electrodes have substantially the same residual stress characteristics relative to the piezoelectric element (*individual electrodes and sintered members are of the same construction, the only difference is location*)

***regarding claim 3**, the sintered members and the individual electrodes are made of the same material (*individual electrodes and sintered members are of the same construction, the only difference is location*)

***regarding claim 4**, the sintered members and the individual electrodes have substantially the same shape and the same size (*individual electrodes and sintered members are of the same construction, the only difference is location*).

***regarding claim 5**, each of the individual electrodes, other than the outermost one with respect to the arrangement direction of the plurality of individual electrodes, is surrounded with corresponding ones of the individual electrodes arranged in a predetermined pattern (*individual electrodes corresponding to chambers 17c are surrounded with other like electrodes, Drawing A*); and wherein

the outermost one of the individual electrodes with respect to the arrangement direction of the plurality of individual electrodes is surrounded with a corresponding one of the individual electrodes and a corresponding one of the sintered members arranged in substantially the same pattern as the predetermined pattern (*any select sintered member is surrounded with both individual electrodes and other like sintered members, Drawing A*)

***regarding claim 6**, the plurality of pressure chambers are arranged adjacent to each other in a matrix on the plane of the passage unit (*chambers 17c adjacent to each other in a matrix, Figure 3*)

***regarding claim 7**, the actuator unit further includes a common electrode that is formed, on a surface of the piezoelectric element opposite to the surface provided with the individual electrodes (*common electrodes 35 are opposite drive electrodes 36, Figure 6*), to span the plurality of pressure chambers (*col. 8, lines 63-64*)

***regarding claim 8**, an inkjet head comprising:

a passage unit in which a plurality of pressure chambers each connected to a corresponding nozzle (*col. 6, lines 40-43*) are arranged adjacent to each other in a matrix along a plane (*chambers 17c in matrix arrangement, Figure 3*); and

an actuator unit (*actuator 20*) that is fixed to the passage unit (*col. 5, lines 3-4*) to change the volume of the pressure chambers (*col. 6, lines 52-59*);

wherein the actuator unit includes a plurality of piezoelectric elements that are put in layers (*col. 8, lines 35-37*) and cover the plurality of pressure chambers (*col. 4, lines 7-10*) arranged adjacent to each other in a matrix;

a plurality of individual electrodes that have been sintered on a surface of one of the plurality of piezoelectric elements (*col. 9, lines 36-39*) and are arranged adjacent to each other

in a matrix at positions corresponding to the respective pressure chambers (*col. 8, lines 47-52 with chambers 17c in matrix arrangement, Figure 3*);

a plurality of sintered members that are, on the surface of the one of the plurality of piezoelectric elements, arranged adjacent to each other so as to surround the plurality of individual electrodes arranged adjacent to each other in a matrix (*sintered members surround the individual electrodes in a matrix, Drawing A*) the sintered members and the individual electrodes having substantially the same residual stress characteristics relative to the piezoelectric elements (*individual electrodes and sintered members are of the same construction, the only difference is location*); and

a common electrode that is formed, on a surface of the one of the piezoelectric elements opposite to the surface provided with the individual electrodes (*common electrodes 35 are opposite drive electrodes 36, Figure 6*), to span the plurality of pressure chambers (*col. 8, lines 63-64*)

Communication with the USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelby Fidler whose telephone number is (571) 272-8455. The examiner can normally be reached on MWF 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Fidler 4/28/2006

SLF

K. FEGGINS 4/04
PRIMARY EXAMINER